

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A data converter ~~that converts~~ configured to convert color image data input from a computer into a specific data form expressible with ink provided in a printing apparatus by referring to a preset conversion table and ~~outputs~~ configured to output the converted image data,

said data converter comprising:

a conversion table receiving unit configured to receive said conversion table from said computer in accordance with a current printing condition of an image;

a conversion table storage unit configured to store the received conversion table in a storage unit configured to store the conversion table in a rewritable memory;

~~a storage unit that stores the conversion table in a rewritable manner, the conversion table being supplied from said computer corresponding to a current printing condition of image in said printing apparatus;~~

an input unit ~~that receives~~ configured to receive the color image data output from said computer;

a conversion unit ~~that refers~~ configured to refer to the conversion table stored in said storage unit and ~~converts~~ configured to convert the color image data received by said input unit into the specific data form; and

an output unit ~~that outputs~~ configured to output the converted image data;

said data converter being constructed as separate body from said computer, wherein the current printing condition includes at least one of a medium type, a printing resolution, an image attribute, and an ink type, the image attribute corresponding to whether or not a currently processed image is a natural image.

Claim 2 (Currently Amended) A data converter in accordance with claim 1, said data converter further comprising:

a decoder unit ~~that receives~~ configured to receive the conversion table compressed in advance by and supplied from said computer and ~~decodes~~ configured to decode the compressed conversion table to be expanded in said storage unit.

Claim 3 (Currently Amended) A data converter in accordance with claim 1, said data converter further comprising:

an interpolation unit ~~that interpolates~~ configured to interpolate the conversion table supplied from said computer to a predetermined accuracy and ~~expands~~ configured to expand the interpolated conversion table in said storage unit.

Claim 4 (Currently Amended) A data converter in accordance with claim 1, wherein said input unit receives a current printing condition of image in said printing apparatus, in addition to the color image data, and comprises a unit ~~that~~ configured to receive, when the input printing condition received by said input unit is not coincident with a printing condition corresponding to the conversion table stored in said storage unit, ~~receives~~ another conversion table corresponding to the input printing condition from said computer.

Claim 5 (Currently Amended) A data converter in accordance with claim 1, wherein said input unit receives ~~[[an]]~~ the image attribute, which represents whether or not a currently processed image is a natural image, from said computer, in addition to the color image data,

said storage unit stores a plurality of conversion tables ~~having~~ including different image attributes, the plurality of conversion tables being selected by said computer at least

based on combinations of a printing resolution of said printing apparatus and a type of printing paper and supplied from said computer, and

said conversion unit changes over a working conversion table to be referred to for the conversion of the color image data in a unit of pixel and carries out the conversion of the color image data, the working conversion table being selected among the plurality of conversion tables stored in said storage unit based on the image attribute received by said input unit.

Claim 6 (Currently Amended) A computer ~~that supplies~~ configured to supply color image data to a data converter, said data converter converting the color image data into a specific data form expressible with coloring material provided in a printing apparatus by referring to a preset conversion table, and outputting the converted image data, said computer comprising:

an image data output unit ~~that outputs~~ configured to output the color image data to said data converter;

a conversion table storage unit ~~that stores~~ configured to store a diversity of the conversion tables mapped to a diversity of printing conditions of image;

a conversion table selection unit ~~that selects~~ configured to select a working conversion table corresponding to a current printing condition of an image in said printing apparatus, among the diversity of conversion tables stored in said conversion table storage unit; and

a conversion table output unit ~~that outputs~~ configured to output the selected conversion table to said data converter, prior to the conversion of the color image data, wherein said computer is constructed as a separate body from said data converter, and the current printing condition includes at least one of a medium type, a printing resolution, an image attribute, and an ink type, the image attribute corresponding to whether or not a

currently processed image is a natural image.

Claim 7 (Original) A computer in accordance with claim 6, wherein said conversion table storage unit stores the diversity of conversion tables in a compressive manner, and said conversion table output unit decodes the compressed conversion table selected by said conversion table selection unit and outputs the decoded conversion table to said data converter.

Claim 8 (Currently Amended) A computer in accordance with claim 6, said computer further comprising:

a conversion table interpolation unit ~~that interpolates~~ configured to interpolate the working conversion table selected by said conversion table selection unit to a predetermined accuracy,

wherein said conversion table output unit outputs the conversion table interpolated by said conversion table interpolation unit.

Claim 9 (Currently Amended) A computer in accordance with claim 6, wherein said conversion table selection unit selects the working conversion table, at least based on ~~[[a]]~~ the combination of a printing resolution of said printing apparatus and a type of printing paper.

Claim 10 (Currently Amended) A computer in accordance with claim 6, said computer further comprising:

a condition storage unit ~~that stores~~ configured to store a printing condition corresponding to the latest conversion table output to said data converter; and

an identification unit ~~that compares~~ configured to compare the current printing

condition of image in said printing apparatus with the printing condition stored in said condition storage unit, in order to carry out identification,

wherein said conversion table output unit outputs the selected conversion table and updates the printing condition stored in said condition storage unit, when said identification unit determines that the two printing conditions are not coincident with each other.

Claim 11 (Currently Amended) A computer in accordance with claim 6, said computer further comprising:

an image attribute generation unit ~~that generates an~~ configured to generate the image attribute, which represents whether or not a currently processed image to be printed is a natural image,

wherein said conversion table storage unit stores the diversity of conversion tables mapped to respective combinations of conditions, which include at least ~~[[a]]~~ the printing resolution of said printing apparatus, a type of printing paper, and the image attribute,

said conversion table selection unit selects a plurality of conversion tables ~~having~~ including different image attributes, at least based on combinations of the printing resolution of said printing apparatus and the type of printing paper,

said conversion table output unit outputs the plurality of selected conversion tables, and

said image data output unit outputs the image attribute in addition to the color image data, and comprises a unit that changes over a working conversion table, which is referred to by said data converter for the data conversion, in a unit of pixel based on the image attribute.

Claim 12 (Currently Amended) A data converter ~~that converts~~ configured to convert color image data input from an imaging device, such as a digital camera or a color scanner,

into a specific data form expressible with coloring material provided in a printing apparatus by referring to a preset conversion table and ~~outputs~~ configured to output the converted image data,

said data converter comprising:

a conversion table storage unit ~~that stores~~ configured to store a diversity of the conversion tables mapped to a diversity of printing conditions of an image;

a conversion table selection unit ~~that selects~~ configured to select a working conversion table corresponding to a current printing condition of image, among the diversity of conversion tables stored in said conversion table selection unit;

an input unit that receives the color image data;

a conversion unit ~~that converts~~ configured to convert the color image data received by said input unit by referring to the working conversion table selected by said conversion table selection unit; and

an output unit ~~that outputs~~ configured to output the converted image data,

wherein said data converter is constructed as a separate body from said imaging device, and the current printing condition includes at least one of a medium type, a printing resolution, an image attribute, and an ink type, the image attribute corresponding to whether or not a currently processed image is a natural image.

Claim 13 (Currently Amended) A data converter in accordance with claim 12, wherein said conversion table storage unit is a rewritable storage unit, and comprises:  
a rewrite unit ~~that rewrites~~ configured to rewrite the contents of storage in said conversion table storage unit, based on a conversion table transferred from said imaging device.

Claim 14 (Currently Amended) A data converter in accordance with claim 13, said data converter further comprising:

a rewrite unit ~~that communicates~~ configured to communicate with a computer, which is constructed as a separate body from said data converter, to receive a conversion table transferred from said computer, and ~~rewrites~~ configured to rewrite the contents of storage in said conversion table storage unit based on the transferred conversion table.

Claim 15 (Currently Amended) A data converter in accordance with claim 12, said data converter further comprising:

a standard storage unit ~~that stores~~ configured to store a standard conversion table in advance,

wherein said conversion unit refers to the standard conversion table stored in said standard storage unit and converts the color image data when the conversion table corresponding to the current printing condition of image is not present in the diversity of the conversion tables stored in said conversion table storage unit.

Claim 16 (Currently Amended) A printing system comprising:

a data converter in accordance with either one of claims 1 and 12; and

a printing apparatus ~~that receives~~ configured to receive image data having a specific data form converted by said data converter and ~~prints~~ configured to print an image corresponding to the input image data,

wherein said data converter is constructed integrally with said printing apparatus.

Claim 17 (Currently Amended) A method of converting color image data output from a computer into a specific data form expressible with coloring material provided in a printing

apparatus by referring to a preset conversion table, and outputting the converted image data, said method comprising ~~the steps of~~:

selecting a conversion table corresponding to a current printing condition of an image among a diversity of conversion tables stored in advance in said computer;

storing the selected conversion table in a rewritable ~~manner~~ memory in a data converter, which is provided separately from said computer; and

referring to the stored conversion table, so as to convert the image data supplied from said computer, wherein the current printing condition includes at least one of a medium type, a printing resolution, an image attribute, and an ink type, the image attribute corresponding to whether or not a currently processed image is a natural image.

Claim 18 (New) A data converter configured to convert color image data input from a computer into a specific data form expressible with ink provided in a printing apparatus by referring to a preset conversion table and configured to output the converted image data, said data converter comprising:

a storage unit configured to store the conversion table in a rewritable manner, the conversion table being supplied from said computer corresponding to a current printing condition of an image in said printing apparatus;

an input unit configured to receive the color image data output from said computer;

a conversion unit configured to refer to the conversion table stored in said storage unit and configured to convert the color image data received by said input unit into the specific data form; and

an output unit configured to output the converted image data, said data converter being constructed as separate body from said computer, wherein

said input unit receives an image attribute, which represents whether or not a currently



processed image is a natural image, from said computer, in addition to the color image data,

said storage unit stores a plurality of conversion tables including different image attributes, the plurality of conversion tables being selected by said computer at least based on combinations of a printing resolution of said printing apparatus and a type of printing paper and supplied from said computer, and

said conversion unit changes over a working conversion table to be referred to for the conversion of the color image data in a unit of pixel and carries out the conversion of the color image data, the working conversion table being selected among the plurality of conversion tables stored in said storage unit based on the image attribute received by said input unit.

Claim 19 (New) A computer configured to supply color image data to a data converter, said data converter converting the color image data into a specific data form expressible with coloring material provided in a printing apparatus by referring to a preset conversion table, and outputting the converted image data, said computer comprising:

an image data output unit configured to output the color image data to said data converter;

a conversion table storage unit configured to store a diversity of the conversion tables mapped to a diversity of printing conditions of an image;

a conversion table selection unit configured to select a working conversion table corresponding to a current printing condition of image in said printing apparatus, among the diversity of conversion tables stored in said conversion table storage unit; and

a conversion table output unit configured to output the selected conversion table to said data converter, prior to the conversion of the color image data, wherein said computer is constructed as a separate body from said data converter,

said computer further comprising:

a condition storage unit configured to store a printing condition corresponding to the latest conversion table output to said data converter; and

an identification unit configured to compare the current printing condition of image in said printing apparatus with the printing condition stored in said condition storage unit, in order to carry out identification,

wherein said conversion table output unit outputs the selected conversion table and updates the printing condition stored in said condition storage unit, when said identification unit determines that the two printing conditions are not coincident with each other.

Claim 20 (New) A computer configured to supply color image data to a data converter, said data converter converting the color image data into a specific data form expressible with coloring material provided in a printing apparatus by referring to a preset conversion table, and outputting the converted image data, said computer comprising:

an image data output unit configured to output the color image data to said data converter;

a conversion table storage unit configured to store a diversity of the conversion tables mapped to a diversity of printing conditions of an image;

a conversion table selection unit configured to select a working conversion table corresponding to a current printing condition of image in said printing apparatus, among the diversity of conversion tables stored in said conversion table storage unit; and

a conversion table output unit configured to output the selected conversion table to said data converter, prior to the conversion of the color image data, wherein said computer is constructed as a separate body from said data converter,

said computer further comprising:

an image attribute generation unit configured to generate an image attribute, which represents whether or not a currently processed image to be printed is a natural image,

wherein said conversion table storage unit stores the diversity of conversion tables mapped to respective combinations of conditions, which include at least a printing resolution of said printing apparatus, a type of printing paper, and the image attribute,

said conversion table selection unit selects a plurality of conversion tables including different image attributes, at least based on combinations of the printing resolution of said printing apparatus and the type of printing paper,

said conversion table output unit outputs the plurality of selected conversion tables, and

said image data output unit outputs the image attribute in addition to the color image data, and comprises a unit that changes over a working conversion table, which is referred to by said data converter for the data conversion, in a unit of pixel based on the image attribute.